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WATER SUPPLY OUTLOOK FOR WASHINGTON



U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

DEPARTMENT OF ECOLOGY STATE OF WASHINGTON

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF
FEB. 1, 1975

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

*Cover Photo: Cabins near Sacajawea Snow Course
in Bridger Mountains, Montana.*

SFS PHOTO 11-P480-15

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 111, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



WATER SUPPLY OUTLOOK FOR WASHINGTON

376

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

KENNETH E. GRANT

ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D C



Released by

GALEN S. BRIDGE

STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
SPOKANE, WASHINGTON

In Cooperation with

JOHN A. BIGGS

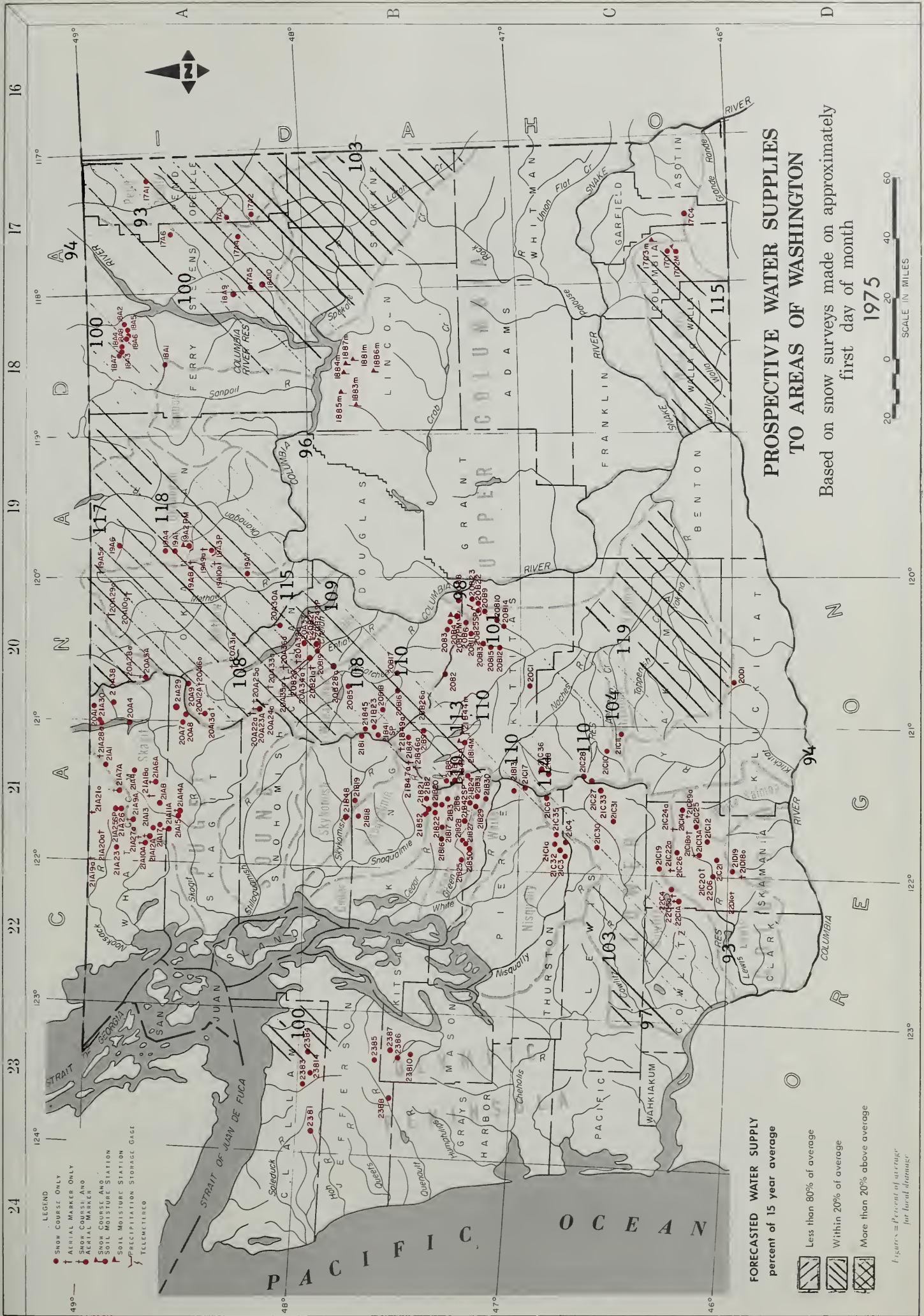
DIRECTOR
DEPARTMENT OF ECOLOGY
STATE OF WASHINGTON



Report prepared by

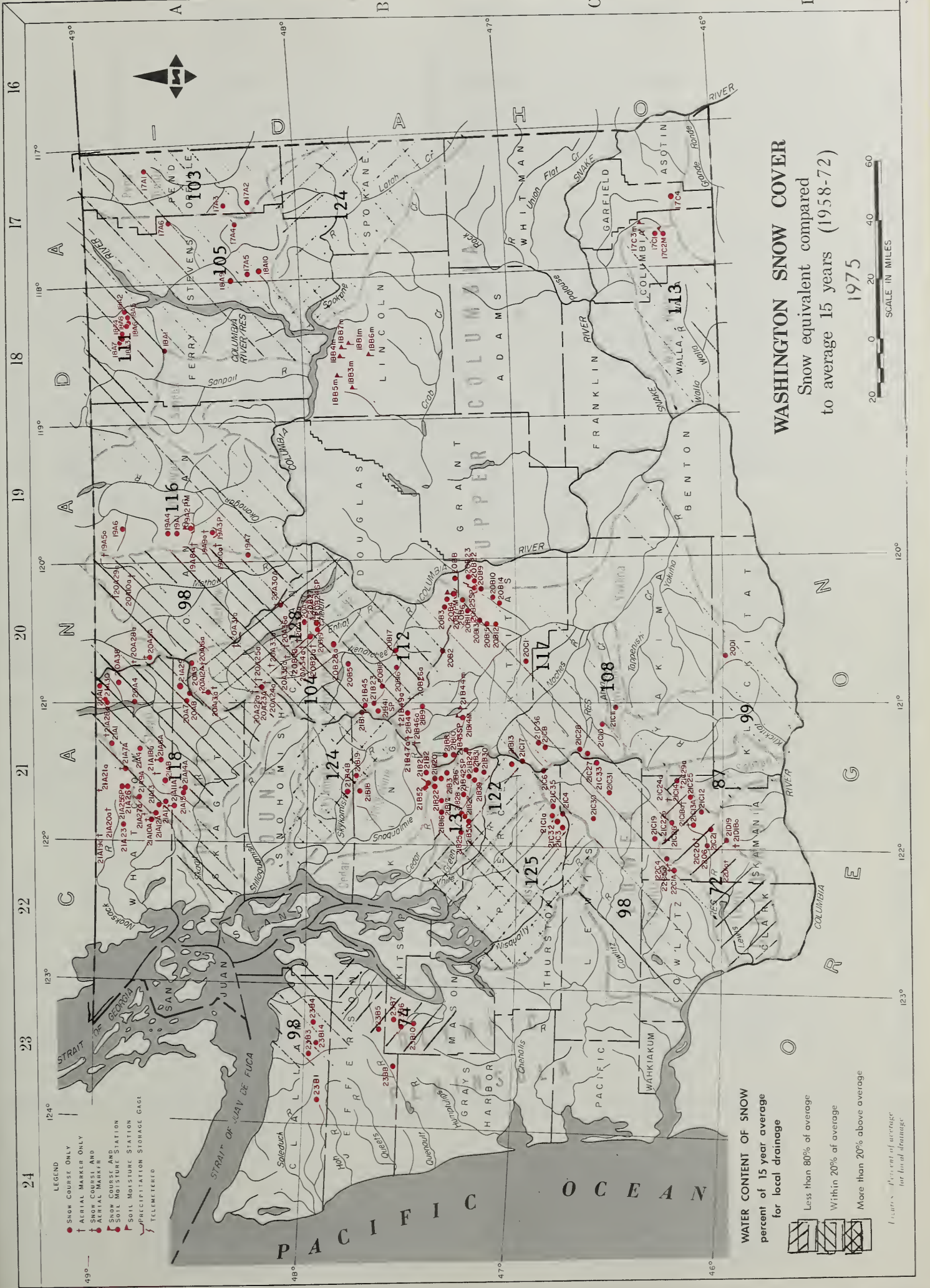
ROBERT T. DAVIS, Snow Survey Supervisor

SOIL CONSERVATION SERVICE
360 U.S. COURTHOUSE
SPOKANE, WASHINGTON 99201



NAME	NUMBER	SEC.	TWP.	RANGE	ELFV.
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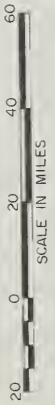
LEGEND	
NUMBERING	SYSTEM EXAMPLE
21A7	SNOW COURSE ONLY
21A7a	AERIAL MARKER ONLY
21A7a	SNOW COURSE AND AERIAL MARKER
21A7m	SNOW COURSE AND SOIL MOISTURE
21A7m	SOIL MOISTURE STATION
21A7p	SNOW COURSE AND PRECIPITATION
21A7p	PRECIPITATION STORAGE GAGE



WASHINGTON SNOW COVER

Snow equivalent compared
to average 15 years (1958-72)

1975



WATER CONTENT OF SNOW
percent of 15 year average
for local drainage



Less than 80% of average
Within 20% of average
More than 20% above average

INDEX to WASHINGTON SNOW COURSES, SOIL MOISTURE STATIONS AND PRECIPITATION STORAGE GAGES

UPPER COLUMBIA DRAINAGE																	LOWER COLUMBIA DRAINAGE																	PUGET SOUND DRAINAGE																	OLYMPIC PENINSULA																																																																												
NAME	NUMBER	SEC.	TWP.	RANGE	ELV.	NAME	NUMBER	SEC.	TWP.	RANGE	ELV.	NAME	NUMBER	SEC.	TWP.	RANGE	ELV.	NAME	NUMBER	SEC.	TWP.	RANGE	ELV.	NAME	NUMBER	SEC.	TWP.	RANGE	ELV.																																																																																																		
UPPER COLUMBIA DRAINAGE																																LOWER COLUMBIA DRAINAGE																																PUGET SOUND DRAINAGE																																OLYMPIC PENINSULA																															
Pend Oreille River																																Asotin Creek																																Lewis River (continued)																																Dungeness River																															
Boyer Mountain	17A2	7	31N	43E	5250	Trough #2	20B25SP	10	20N	20E	5310	Wenatchee River (continued)	20B25SP	10	20N	20E	5310	Divide Meadow	21C29a	21	9N	10E	5600	Seaver Creek Trail	21A1	35	39N	12E	2200	Deer Park	23B4	1	28N	5W	5200																																																																																												
Bunchgrass Meadow	17A1	24	37N	44E	5000	Colockum Creek Upper	20B22	11	20N	20E	5300	Colockum Creek	20B22	11	20N	20E	5300	Lone Pine Shelter	21C26	8	9N	7E	3800	Beaver Pass	21A28a	26	40N	12E	6000	Cox Valley	23B14	31	29N	6W	4500																																																																																												
Winchester Creek	17A3	30	35N	43E	2970	Colockum Creek Lower	20B23	1	20N	20E	4300	Squillchuck Creek	20B23	1	20N	20E	4300	Marble Mountain	21C26a	24	8N	5E	3200	Brown Top	21A28a	26	40N	12E	6000																																																																																																		
Kettle River																																Mill Creek																																Skagit River																																Morse Creek																															
Boulder Road	18A2	36	39N	36E	1450	Spruce Springs	17C4	9	8N	40E	5700	8eehive Springs	20B3	12	21N	19E	4400	Colockum Creek	20B22	11	20N	20E	5300	Freezout Creek Tr. il	20A1	14	40N	14E	5900																																																																																																		
Gutle Creek	18A3	28	39N	35E	4070	Couse	17C3M	2	9N	40E	3370	Scout-A-Vista	20B4	18	21N	20E	3400	Upper Wheeler	20B7PM	30	21N	20E	5000	Frezout Creek New	20A38	8	40N	16E	5500																																																																																																		
Cabin Creek	18A8	5	38N	36E	3170	Homestead	17C1	11	9N	40E	4030	Jump-Off	20B8	34	21N	20E	4450	Squillchuck Creek	20B23	1	20N	20E	4300	Granite Creek	21A29	25	36N	16E	3500																																																																																																		
Gout Creek	18A4	26	39N	35E	3595	Martin Springs (Helmers SW)	17C2N	23	9N	40E	4400	Stemilt Slide	20B6	30	21N	20E	5000	Stemilt Creek	21C20a	16	8N	7E	3400	Meadows Cabins	20A8	29	36N	14E	1900																																																																																																		
Snow Caps Creek	18A5	3	38N	36E	2150	White Pass (East Side)	21C28	2	13N	11E	4500	Upper Wheeler	20B7PM	30	21N	20E	5000	Stemilt Creek	21C20a	16	8N	7E	3400	New Hozomeen Lake	20A7	19	40N	14E	2800																																																																																																		
Snow Caps Trail	18A6	5	38N	36E	2720	White Pass (Leach Lake)	21C27	1	13N	11E	4500	Stemilt Slide	20B6	30	21N	20E	5000	Stemilt Creek	21C20a	16	8N	7E	3400	Thunder Basin	21A30	10	35N	14E	4200																																																																																																		
Summit G. S.	18A7	20	35N	35E	4600							Upper Wheeler	20B7PM	30	21N	20E	5000	Stemilt Creek	21C20a	16	8N	7E	3400																																																																																																								
Colville River																																Klickitat River																																Nooksack River																																Elwha River																															
Baird	17A6	19	36N	42E	3215	Satus Pass	20D1	21	6N	17E	4030	Crab Creek	18B1M	32	27N	34E	2440	Yakima River	21C11	24	12N	14E	3100	8aker Pass	21A27a	1	37N	7E	4900																																																																																																		
Carlson	18A9	34	32N	38E	2885	Cultus Creek	21C12	35	7N	8E	4000	Jack Woods	18B3M	28	27N	31E	2750		21C18	25	20N	20E	5370	Dock Butte	21A11a	8	36N	8E	3800																																																																																																		
Chevelah	17A1	11	32N	41E	4925	Lewis River	21C22a	19	9N	8E	4800	Krause	18B4M	21	27N	33E	2420		21C18	25	20N	20E	5370	Easy Pass	21A7a	19	33N	11E	5200																																																																																																		
Stranger Mountain	17A5	26	31N	38E	4990	8lobe Lake	21C21	25	8N	7E	2200	Sheffels	18B5M	17	27N	32E	2378		21C18	25	20N	20E	5370	Jasper Pass	21A6a	17	38N	11E	5400																																																																																																		
Togo	18A10	6	29N	38E	3370	8ob's Trail	21C21a	8	5N	5E	2500	Sherman	18B7M	24	27N	33E	2440		21C18	25	20N	20E	5370	Komo Kulshan	21A17	23	37N	9E	800																																																																																																		
Sanpoil River																																White Salmon River																																Nisqually River																																Panorama New																															
Sherman Creek Pass	18A1	19	36N	35E	5350	Council Pass	21C18a	24	9N	9E	4200	Wheatridge	18B6M	24	25N	32E	2290		21C14	36	10N	10E	4500	Mount Blum	21A18a	20	37N	8E	2100																																																																																																		
Okanogan River																																Lewis River																																Ghost Forest																																Twin Lakes																															
Clark	19A8A	2	36N	23E	7000							Ahtanum R. S.	21C11	24	12N	14E	3100		21C14	23	15N	8E	4550	Rocky Creek	21A12a	20	37N	8E	2100																																																																																																		
Nuckamuck	19A9A	20	36N	24E	6750							8ig Boulder Creek	21C11	24	12N	14E	3100		21C13	23	15N	8E	4550	Schreibers Meadow	21A12a	20	37N	8E	2100																																																																																																		
Nutton Creek No. 1	19A1	30	37N	24E	5700							Rumping Lake	21C18	25	16N	12E	3450		21C13	23	15N	8E	4550	S. F. Thunder Creek	21A14a	20	36N	9E	2200																																																																																																		
Nutton Creek No. 2	19A4	19	37N	24E	6000							Rumping Lake New	21C36	13	16N	12E	3400		21C13	23	15N	8E	4550	Sulphur Creek	21A13	22	37N	8E	1600																																																																																																		
Paydayton	20A38A	32	40N	18E	4300							Colockum Pass	20B9	25	20N	20E	5270		21C13	23	15N	8E	4550	Three Mile Creek	21A15	18	36N	9E	1600																																																																																																		
Rusty Creek	19A3P	18	35N	24E	4000							Cooke Creek	20B10	17	19N	20E	4123		21C13	23	15N	8E	4550	Watson Lakes	21A18	25	37N	9E	4500																																																																																																		
Salmon Meadows	19A2PM	33	37N	24E	4500							Donery Flat	21B4M	15	20N	14E	2200		21C14	36	10N	10E	4500																																																																																																								
Starvation Mtn.	19A10a	15	35N	23E	6750							Fish Lake	21B4	34	24N	14E	3371		21C14	36	10N	10E	4500																																																																																																								
Tours Goulee	19A6	30	39N	25E	2845							Green Lake	21C10	3	12N	13E	6000		21C14	36	10N	10E	4500																																																																																																								
Methow River																																White River																																Nooksack River																																Skokomish River																															
Billy Goat Pass	20A10A	10	38N	20E	6400							High Creek	20B12	22	23N	12E	4624		21C14	23	15N	8E	4550	Rocky Creek	21A12a	20	37N	8E	2100																																																																																																		
Dollar Watch	20A29a	8	39N	20E	7000							Joe Lake	21B46a	25	20N	14E	4624		21C13	23	15N	8E	4550	Schreibers Meadow	21A12a	20	37N	8E	2100																																																																																																		
Harts Pass	20A5a	7	37N	18E	6500							Lemah Creek	21B47a	15	20N	14E	4624		21C13	23	15N	8E	4550	S. F. Thunder Creek	21A14a	20	36N	9E	2200																																																																																																		
Horseshoe Basin	19A5a	15	40N	23E	7000							Manastash	20C1	24	17N	16E	3935		21C13	23	15N	8E	4550	Sulphur Creek	21A13	22	37N	8E	1600																																																																																																		
Loup Loop	19A7	36	34N	23E	4650							Morse Lake	21C17	6	16N	11E	5400		21C13	23	15N	8E	4550	Three Mile Creek	21A15	18	36N	9E	1600																																																																																																		
Chelan Lake Basin																																Green River																																Nisqually River																																Panorama New																															
Cloudy Pass	20A22a	12	31N	15E	6500							Nanum	20B13	4	20N	19E	3875		21C13	23	15N	8E	4550	Mount Blum	21A18a	20	37N	8E	2100																																																																																																		
Greenwood Flat	20A25a	5	31N	16E	3540							Trail Creek	20B14	20	19N	20E	3360		21C13	23	15N	8E	4550	Rocky Creek	21A12a	20	37N	8E	2100																																																																																																		
Little Meadows	20A21a	8	31N	16E	5275							Tunnel Avenue	21B8	13	21N	11E	2450		21C13	23	15N	8E	4550	Schreibers Meadow	21A12a	20	37N	8E	2100																																																																																																		
Lyman Lake	20A23a	18	31N	16E	5900							Van Epps Pass	20B26a	16	23N	15E	5925		21C13	23	15N	8E	4550	S. F. Thunder Creek	21A14a	20	36N	9E	2200																																																																																																		
Park Creek Flat	20A13a	39	34N	16E	2220							Walters Flat	20B15	22	20N	19E	3360		21C13	23	15N	8E	4550	Sulphur Creek	21A13	22	37N	8E	1600																																																																																																		
Park Creek Ridge	20A12a	18	34N	16E	4600							Naptus Lake	21B49a	12	23N	13E	3024		21C13	23	15N	8E	4550	Three Mile Creek	21A15	18	36N	9E	1600																																																																																																		
Petersons	20A16a	3	34N	17E	3730							White Pass (East Side)	21C28	2	13N	11E	4500		21C13	23	15N	8E	4550	Watson Lakes	21A18	25	37N	9E	4500																																																																																																		
Rainy Pass	20A9	21	35N	17E	4780							White Pass (Leach Lake)	21C27	1	13N	11E	4500		21C13	23	15N	8E	4550																																																																																																								
Safety Harbor	20A30a	32	31N	20E	6300														21C13	23	15N	8E	4550																																																																																																								
War Creek Pass	20A31a	34	33N	18E	6500														21C13	23	15N	8E	4550																																																																																																								
Entiat River																																Cedar River																																Nisqually River																																Skokomish River																															
Blue Creek G.S.	20B28a	19	28N	18E	5425														21C13	23	15N	8E	4550	Black and White	23B7	17	24N	5W	4200																																																																																																		
8rief	20B19	34	28N	19E	1600														21C13	23	15N	8E	4550	Black and White Lakes	23B6	16	24N	5W	4700																																																																																																		
Entiat Meadows	20A33a	28	31N	17E	4800														21C13	23	15N	8E	4550	Four Stream	23B10	1	23N	6W	3000																																																																																																		
Entiat River Trail	20A34a	2	29N	17E	3150														21C13	23	15N	8E	4550	Home Sweet Home	23B5	28	25N	5W	5200																																																																																																		
Four Mile Ridge	20B27a	15	28N	19E	7000														21C13	23	15N	8E	4550	Sundown Pass	23B8	25	24N	7W	3900																																																																																																		
Fox Camp	20A36a	1	30N	18E	6510														21C13	23	15N	8E	4550																																																																																																								
Pope Ridge	20B20	22	29N	18E	4300														21C13	23	15N	8E	4550																																																																																																								
Pope Ridge Snow Pillow	20B24SP	22	29N	18E	4300														21C13	23	15N	8E	4550																																																																																																								
Pugh Ridge	20A32a	34	30N	18E	64																																																																																																																										

WATER SUPPLY OUTLOOK

State of Washington
February 1, 1975

* Compared to the overly abundant water supply that was experienced *
* in the State of Washington in 1974, the current situation appears *
* that adequate water will be available from all basins without *
* excessive flows or subnormal conditions existing from any *
* locations. There are some watersheds that are deficient in snow *
* pack as of February 1 and some that have above normal conditions, *
* but with the expected remaining snowfall and normal spring precipi- *
* tation, near normal supplies of water can be expected. *

SNOW COVER

Near normal snow packs were measured over the state and tributary basins on February 1. With minor exceptions, both plus and minus, the greatest snow cover was measured in the Green River Watershed where the eight snow courses indicated the snow pack to be 37 percent above normal. The most deficient areas are the Lewis and Skokomish, which had a snow pack that was 28 percent and 26 percent below normal, respectively. The snow cover in the Upper Columbia Drainage in British Columbia does not appear to be as favorable as that which we are experiencing in this state or even in the Okanogan and Similkameen Drainages in British Columbia. The Cascade Crest has the best overall snow cover currently measured in Washington. When comparing the current snow pack to last year, only two watersheds, the Kettle in Canada and the Spokane in Idaho, indicate a greater percentage. The range is from 64 percent below 1974 up to 2 percent greater. Comparing to the low year of 1973, all watersheds report a much greater percent snow pack than occurred at that time.

RESERVOIRS

Generally speaking, the amount of water stored in reservoirs, as of February 1, is above average with a few exceptions. The major power reservoirs have above normal amounts of water stored and irrigation reservoirs, normal or above amounts. The result will be adequate storage for later drafting if weather conditions remain normal and no excessive cold spells occur.

PRECIPITATION

During the September through October period, the National Weather Service reports extreme drouth conditions in all watersheds in Washington and its tributary basins. These deficits range from 90 percent below normal to 71 percent below. During the period November through January this deficit was generally made up, resulting in above normal precipitation except in the Northcentral Drainage Division. January precipitation, itself, was above normal with the exception of the Columbia Drainage in Canada and the northeastern portion of the state. These areas were 2 percent below and 20 percent below, respectively. The other drainage divisions range from 13 percent above in the Pend Oreille-Spokane Drainage to 54 percent above in the southeastern area.

STREAMFLOW

During January, streamflow, as measured by the United States Geological Survey, ranged from 44 percent below normal for the Spokane River to 56 percent above for the Walla Walla. The main stem of the Columbia had generally below normal flows with the greater flows along the Cascades and some Pacific Drainages in the west. Forecasts of streamflow are for normal or near normal flows during the forth coming runoff season. Percentagewise, these flows range from a low of 10 percent below normal for the April-June flows of the Columbia River at Birchbank to a high of 21 percent above normal for the April-July flows of the Yakima River near Parker. These flow figures are quite preliminary as there is still several months of winter yet to come and, as has occurred in the past, the existing conditions of snow pack and winter rainfall can drastically change.

STREAMFLOW FORECASTS - FEBRUARY 1975

The following summarized runoff forecasts are based principally on mountain snow-cover and on the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts. Streamflow figures for 1974 are preliminary and subject to revision.

Basin, Stream and Station	Forecast Runoff 1975	Seasonal Streamflow in Thousands of Acre-Feet					
		% 15-Yr. Avg.	Fore- cast period	1974	1973	1972	15-Yr Average 58-72
<u>COLUMBIA BASIN</u>							
<u>Columbia River System</u>							
Columbia River	43600	94	Apr-Sep	54227	34796	56680	46430
at Birchbank <u>1/</u>	35100	94	Apr-Jul	44492	27876	46587	37548
	24800	90	Apr-Jun	31893	20203	34333	27549
Columbia River	66000	96	Apr-Sep	85139	45849	85860	68868
at Grand Coulee <u>1/</u>	56000	96	Apr-Jul	73671	38193	73431	58379
	42500	92	Apr-Jun	57033	29886	57727	46060
Columbia River	73600	98	Apr-Sep	96939	49117	97430	75337
bl Rock Island Dam <u>1/</u>	61000	95	Apr-Jul	84480	41200	84085	64192
	48000	95	Apr-Jun	65246	32032	66051	50604
Columbia River	98500	94	Apr-Sep	139724	65162	135452	104670
at The Dalles, Or <u>1/</u>	82600	92	Apr-Jul	123569	54260	118552	89893
	67000	92	Apr-Jun	99282	43395	96933	73158
<u>PEND OREILLE RIVER SYSTEM</u>							
Pend Oreille River	14800	93	Apr-Sep		8311	20294	15953
bl. Box Canyon	13600	93	Apr-Jul		7614	18724	14688
	11600	91	Apr-Jun		6756	16109	12777
<u>KETTLE RIVER SYSTEM</u>							
Kettle River							
nr. Laurier	1870	100	Apr-Sep	2854	1121	2289	1873
	1790	100	Apr-Jul	2780	1093	2205	1793
	1620	99	Apr-Jun	2514	1020	1965	1640

1/ Observed flow corrected for storage in any of the following reservoirs which are above the station: Kootenay Lake, Hungry Horse, Flathead Lake, Pend Oreille Lake, F. D. Roosevelt Lake, Lake Chelan, Coeur d'Alene Lake, Brownlee, Noxon Reservoir and pumpage at F. D. Roosevelt Lake.

Basin, Stream and Station	Forecast Runoff 1975	Seasonal Streamflow in Thousands of Acre-Feet					
		%	Fore-				15-Yr.
		15-Yr. Avg.	cast Period	1974	1973	1972	Average 58-72
<u>Kettle River System (Cont.)</u>							
Colville River							
at Kettle Falls	148	100	Apr-Sep		54	114	148
	137	100	Apr-Jul		50	103	137
	125	98	Apr-Jun		48	94	128
<u>Spokane River System*</u>							
Spokane River	3100	103	Apr-Sep			4002	3120
at Post Falls, ID <u>2/</u>	3000	103	Apr-Jul			3875	2899
	2800	101	Apr-Jun			3644	2773
<u>Okanogan River System</u>							
Similkameen River	1770	117	Apr-Sep	2276	736	3259	1517
nr. Nighthawk	1650	116	Apr-Jul	2151	697	3090	1424
	1460	119	Apr-Jun	1729	621	2568	1222
Okanogan River	2030	118	Apr-Sep	2718	765	3852	1723
nr. Tonasket	1840	116	Apr-Jul	2491	707	3523	1582
	1580	117	Apr-Jun	1985	622	2895	1349
<u>Methow River System</u>							
Methow River							
nr. Pateros	1180	115	Apr-Sep		512	1959	1031
	1100	114	Apr-Jul		476	1819	963
	950	114	Apr-Jun		417	1524	832
<u>Chelan River System</u>							
Chelan River	1370	109	Apr-Sep	1343	777	1866	1253
at Chelan <u>3/</u>	1230	111	Apr-Jul	1054	680	1619	1112
	980	111	Apr-Jun	658	544	1250	881
Stehekin River	975	108	Apr-Sep		541	1235	904
at Stehekin	850	110	Apr-Jul		447	1044	776
	675	112	Apr-Jun		352	772	600
Entiat							
nr. Ardenvoir	Not Forecast		Apr-Sep		145	398	239
	as of		Apr-Jul		131	361	220
	February 1		Apr-Jun		113	283	180

- * Forecasts made by Jack A. Wilson, Soil Conservation Service, Boise, Idaho
- 2/ Observed flow corrected for storage in Coeur d'Alene Lake and diversions by Spokane Valley Farms Company and Rathdrum Prairie Canals.
- 3/ Observed flow corrected for storage in Lake Chelan.

Basin, Stream and Station	Forecast Runoff 1975	Seasonal	Streamflow in	Thousands of Acre-Feet			15-Yr.
		% 15-Yr. Avg	Fore- cast Period	1974	1973	1972	Average 1958-72
<u>Wenatchee River System</u>							
Wenatchee River	1420	108	Apr-Sep		790	1926	1312
at Plain	1300	110	Apr-Jul		709	1686	1187
	1050	110	Apr-Jun		589	1272	956
Wenatchee River	1960	110	Apr-Sep	2633	1033	2787	1786
at Peshastin	1800	110	Apr-Jul	2297	938	2464	1629
	1480	112	Apr-Jun	1670	786	1883	1324
Stemilt Basin nr Wenatchee	140*	101	May-Sep			145*	138*
<u>Yakima River System</u>							
Yakima River	156	110	Apr-Sep	251	83	220	142
nr. Martin <u>4/</u>	145	110	Apr-Jul	180	76	198	131
	130	112	Apr-Jun	134	70	167	116
Yakima River	1060	110	Apr-Sep		555	1515	965
at Cle Elum <u>5/</u>	1000	114	Apr-Jul		489	1374	877
	870	114	Apr-Jun		433	1156	764
Yakima River	2060	119	Apr-Sep		582	3231	1730
nr. Parker <u>6/</u>	2050	121	Apr-Jul		590	3071	1701
	1900	120	Apr-Jun		598	2694	1580
Kachess River	142	114	Apr-Sep	245	66	195	125
nr. Easton <u>7/</u>	135	114	Apr-Jul	92	63	182	118
	122	115	Apr-Jun	42	59	153	106
Cle Elum River	540	113	Apr-Sep	649	285	747	477
nr Roslyn <u>8/</u>	500	114	Apr-Jul	444	255	670	437
	430	116	Apr-Jun	293	220	537	372

* Thousands of Miners' inches.

4/ Observed flow corrected for storage in Lake Keechelus.

5/ Observed flow corrected for storage in Keechelus, Kachess and Cle Elum Lakes and diversion by Kittitas Canal.

6/ Observed flow corrected for storage in Keechelus, Kachess, Cle Elum, Bumping and Rimrock Lakes and diversions by Roza, Union Gap, New Reservation, Old Reservation and Sunnyside Canals.

7/ Observed flow corrected for storage in Lake Kachess.

8/ Observed flow corrected for storage in Lake Cle Elum.

Basin, Stream and Station	Forecast Runoff 1975	Seasonal Streamflow in Thousands of Acre-Feet					
		% 15-Yr. Avg.	Fore- cast period	1974	1973	1972	15-Yr. Average 1958-72
<u>Yakima River System (Cont.)</u>							
Bumping River	165	114	Apr-Sep	225	74	228	146
nr. Nile <u>9/</u>	155	116	Apr-Jul	178	68	203	134
	130	116	Apr-Jun	126	61	155	112
American River	140	110	Apr-Sep		70	186	128
nr. Nile	130	110	Apr-Jul		65	169	118
	110	110	Apr-Jun		58	137	100
Tieton River	270	110	Apr-Sep	405	160	407	247
at Tieton Dam <u>10/</u>	235	111	Apr-Jul	337	124	342	211
	190	110	Apr-Jun	255	99	267	172
Naches River	980	110	Apr-Sep	436	442	1477	889
nr. Naches <u>11/</u>	900	111	Apr-Jul	293	385	1339	810
	780	112	Apr-Jun	207	336	1106	698
Ahtanum Creek	50	104	Apr-Sep		21	75	48
nr. Tampico <u>12/</u>	45	102	Apr-Jul		18	69	44
	42	107	Apr-Jun		16	59	39
<u>Lower Columbia River System</u>							
Mill Creek							
nr. Walla Walla	31	115	Apr-Sep		17	34	27
	27	112	Apr-Jul		13	29	24
	24	114	Apr-Jun		11	26	21
Lewis River	1260	93	Apr-Sep	1872	800	1597	1342
at Ariel <u>13/</u>	1100	94	Apr-Jul	1684	666	1392	1174
	980	93	Apr-Jun	1420	574	1236	1052
Cowlitz River	2170	103	Apr-Sep		1252	3048	2106
Blw. Mayfield Dam	1920	104	Apr-Jul		1068	2672	1846
	1640	104	Apr-Jun		904	2201	1578
Cowlitz River	2700	97	Apr-Sep	4296	1676	3819	2768
at Castle Rock <u>14/</u>	2400	99	Apr-Jul	3850	1419	3331	2416
	2030	97	Apr-Jun	3158	1212	2782	2083

9/ Observed flow corrected for storage in Bumping Lake.

10/ Observed flow corrected for storage in Rimrock Lake.

11/ Observed flow corrected for storage in Bumping and Rimrock Lakes and diversions by Tieton, Selah Valley, Wapatox Canals and City of Yakima.

12/ Observed flow of North and South Forks (Combined)

13/ Observed flow corrected for storage in Lake Merwin, Yale and Swift Reservoirs.

14/ Observed flow corrected for storage in Mayfield Reservoir.

Basin, Stream and Station	Forecast Runoff 1975	Seasonal % 15-Yr. Avg	Streamflow in Thousands of Acre-Feet			
			Fore- cast Period	1974	1973	15-Yr. Average 1958-72

OLYMPIC PENINSULA

Dungeness River System

Dungeness River	165	100	Apr-Sep	120	207	165
nr. Sequim	135	99	Apr-Jul	98	171	137
	105	101	Apr-Jun	74	127	104

COMPARISON OF SNOW COVER WITH THAT OF PREVIOUS YEARS

The following tabulation of Washington stream basins presents the water content of the snow about February 1, 1975, as percent of the same date in 1974 and 1973 and average of record.

Tributary Basin	No. of Courses Average	1975 Snow Water Expressed as percent of		
		1974	1973	1958-72 Avg.

UPPER COLUMBIA BASIN

Pend Oreille	10	79	149	103
Kettle	16	102	203	111
Colville	5	78	171	105
Spokane	3	102	222	124
Okanogan	42	87	189	116
Methow	10	64	143	98
Chelan	7	84	153	128
Entiat	10	78	136	104
Wenatchee	9	88	211	112
Yakima	23	82	210	117
Ahtanum	2	97	173	108

LOWER COLUMBIA

Mill Creek	3	65	492	113
Klickitat	1	72	277	99
White Salmon	2	56	315	87
Lewis	17	57	175	72
Cowlitz	10	72	234	98

PUGET SOUND

Nisqually	4	76	253	125
White	2	70	160	122
Green	8	99	381	137
Skykomish	2	95	169	124
Skagit	14	75	173	118
Nooksack	2	87	176	-

OLYMPIC PENINSULA

Skokomish	4	59	112	74
Elwha	1	-	139	98

RESERVOIR STORAGE - 1000 Acre Feet

BASIN OR STREAM	RESERVOIR	USABLE <u>1/</u> CAPACITY	1975	1974	Measured (February) 1973	Normal*
<u>COLUMBIA</u>						
Spokane	Coeur d'Alene Lake	225.1	63.8	386.0	153.3	138.4
Columbia	Franklin D. Roosevelt Lake	5232.0	4844.6	730.6	4937.1	3766.0
Columbia	Banks Lake	761.8	714.9	720.3	610.7	566.9
Okanogan	Conconully Reservoir	13.0	10.6	5.6	10.8	10.8
Okanogan	Salmon Lake	10.5	9.2	7.3	9.5	7.6
Chelan	Lake Chelan	676.1	242.9	297.7	237.1	295.9
<u>YAKIMA</u>						
Yakima	Keechelus Lake	157.8	127.8	87.3	98.6	96.1
Kachess	Kachess Lake	239.0	142.4	93.6	193.0	175.7
Cle Elum	Lake Cle Elum	436.9	338.2	168.7	315.9	232.9
Bumping	Bumping Lake	33.7	5.3	10.8	6.7	8.3
Tieton	Rimrock Lake	198.0	136.3	112.0	143.1	110.6
<u>PUGET SOUND</u>						
Skagit	Ross Reservoir	1202.0	1094.5	1231.4	997.3	582.1
Skagit	Diablo Reservoir	90.6	84.9	85.2	83.4	84.4
Skagit	Gorge Reservoir	9.8	8.2	7.6	8.2	-

1/ Based on Active Storage

* 15-year Average 1958-72

SOIL MOISTURE - FEBRUARY

Drainage Basin and Station	Number	Elev.	Profile Depth	Inches Total Capacity	Soil Moisture Content		
					Inches as of Feb. 1		
					1975	1974	1973
<u>OKANOGAN</u>							
Salmon Meadows	19A2M	4500	48	5.4	2.0	3.7	2.4
Trout Creek	3-M	3600	48	7.3	3.2	3.0	3.4
<u>YAKIMA</u>							
Domery Flat	21B20m	2200	48	6.9	-	5.0	6.6
Lake Cle Elum	21B14M	2200	48	12.8	-	9.2	6.9
<u>WALLA WALLA</u>							
Couse	17C3m	3650	48	11.1	10.2	10.1	7.3
Helmrs	17C2M	4400	48	12.0	8.8	9.8	10.7
<u>WENATCHEE</u>							
Upper Wheeler	20B7M	4400	48	12.7	8.6	11.3	8.9

FALL SOIL MOISTURE

Drainage Basin and Station	Number	Elev.	Profile Depth	Inches Total Capacity	Soil Moisture Content		
					Inches as of Oct. 1		
					1974	1973	1972
<u>OKANOGAN</u>							
Salmon Meadows	19A02M	4500	48	5.4	1.8	2.6	2.8
Trout Creek	3-M	3600	48	7.3	3.0	2.8	3.3
<u>YAKIMA</u>							
Domery Flat	21B20m	2200	48	6.9	-	2.6	4.1
Lake Cle Elum	21B14M	2200	48	12.8	-	6.1	8.7
<u>WALLA WALLA</u>							
Couse	17C3m	3650	48	11.1	-	5.6	6.0
Helmrs	17C2M	4400	48	12.0	-	7.6	7.7
<u>WENATCHEE</u>							
Upper Wheeler	20B7M	4400	48	12.7	5.4	6.0	5.7

PRECIPITATION 1/
DIVISION AVERAGES AND DEPARTURES

Drainage Divisions	FALL		WINTER	
	Sept-Oct Average	1974 <u>2/</u> Departure	Nov-Dec 1974 Average	Jan 1975 <u>2/</u> Departure
Columbia in Canada	1.22	-3.25	9.61	+0.40
Pend Oreille - Spokane	0.71	-3.77	14.52	+1.59
Northeastern Washington	0.30	-2.48	9.45	+1.56
Southeastern Washington	0.31	-2.92	9.38	+0.41
Central Washington	1.21	-3.54	22.61	+2.58
North Central Washington	0.37	-1.25	4.71	-0.21
Northwest Slope Cascades	3.25	-9.44	42.89	+7.07
Southwest Slope Cascades	2.49	-6.19	33.35	+4.44

Northeastern Washington	- Lower Spokane, Colville, Sanpoil and lower Kettle drainages.
Southeastern Washington	- Touchet, Tucannon and Palouse drainages.
Central Washington	- Yakima, Wenatchee and Chelan drainages.
North Central Washington	- Methow and Okanogan drainages.
Northwest Slope Cascades	- Puget Sound drainages.
Southwest Slope Cascades	- Lower Columbia drainages.

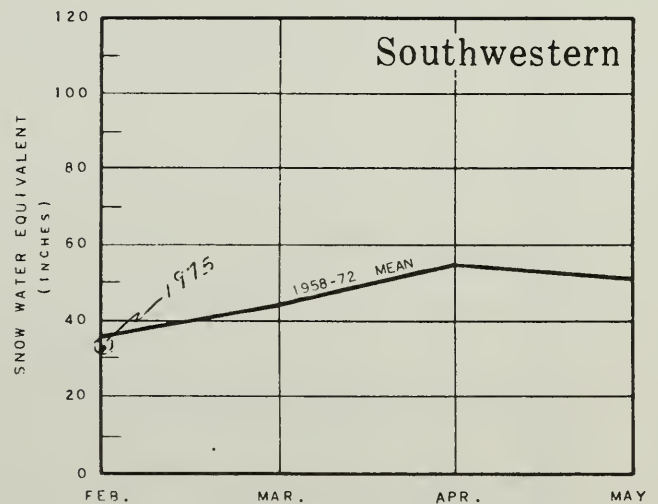
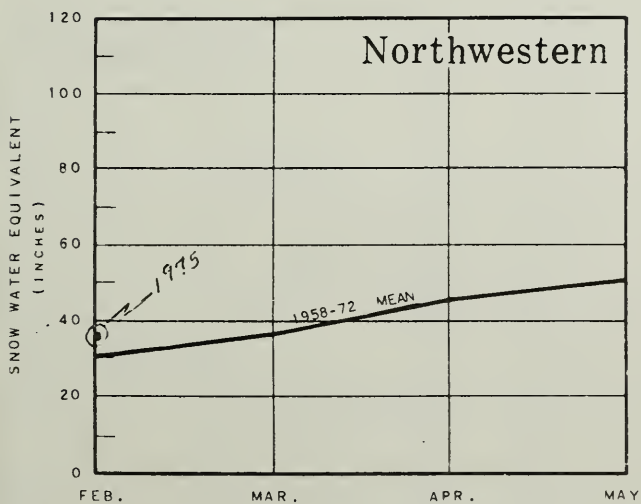
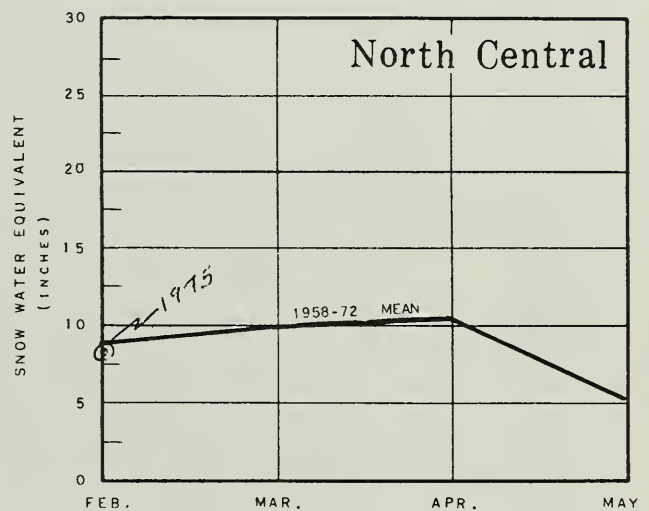
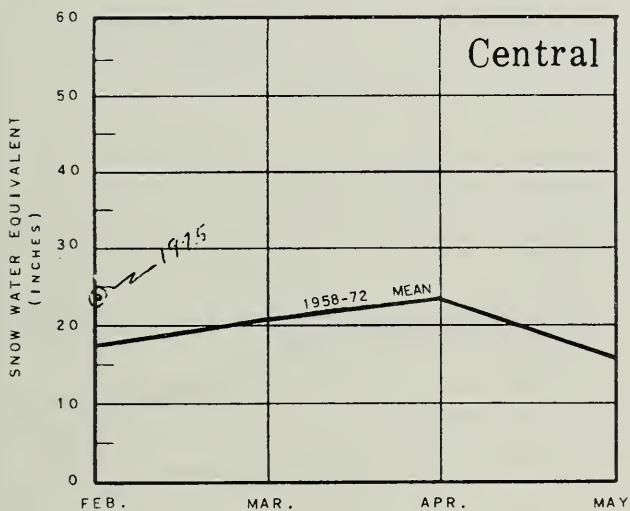
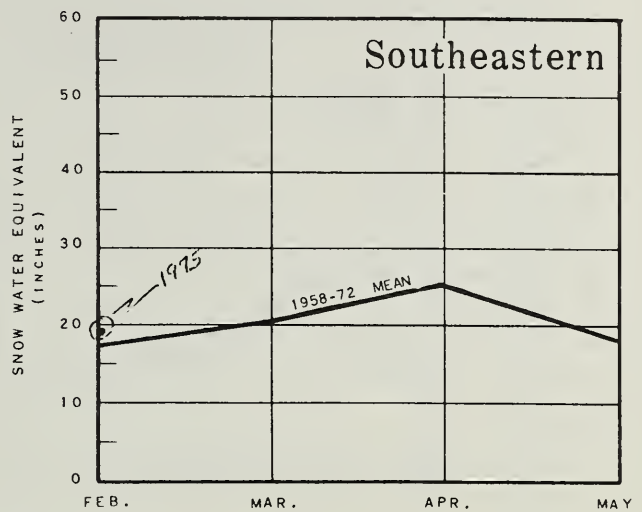
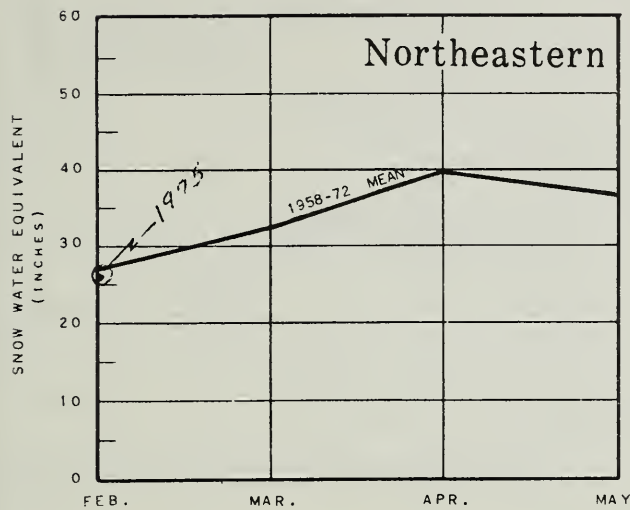
1/ - Preliminary analysis by National Weather Service from data furnished by Meteorological Services of Canada and the National Weather Service.

2/ - Departure from 15-year (1958-72) drainage division average.

WASHINGTON SNOW COVER

1975

DRAINAGE AREAS

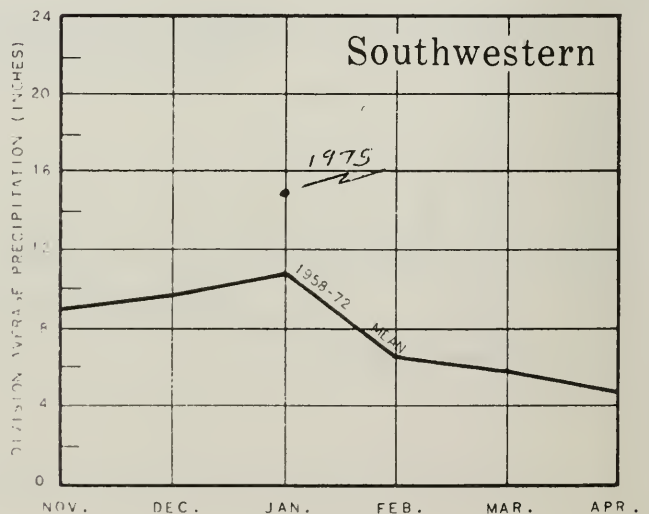
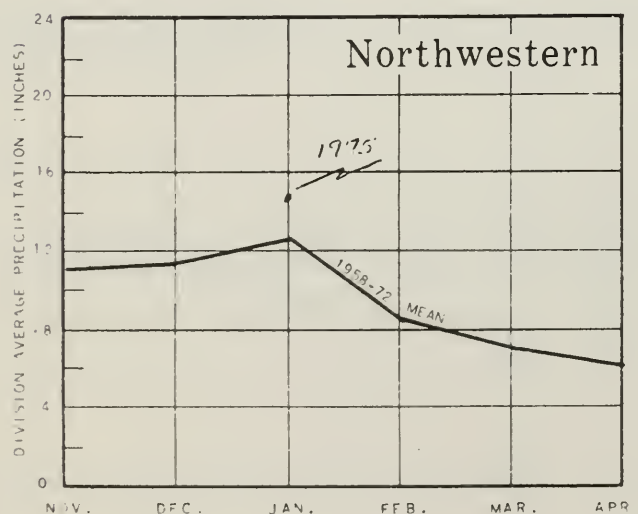
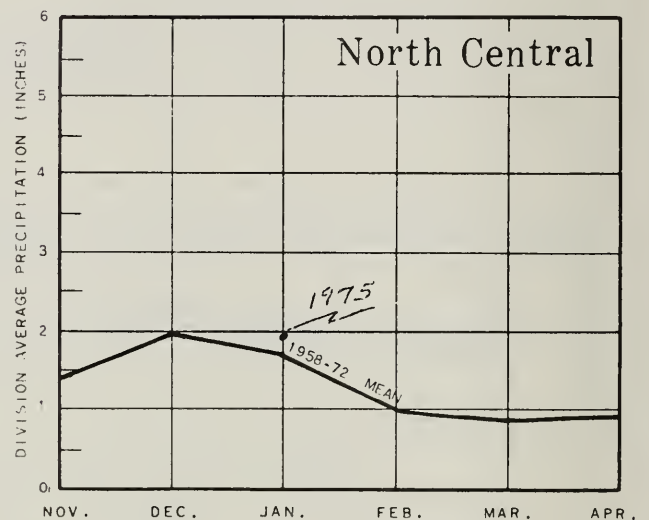
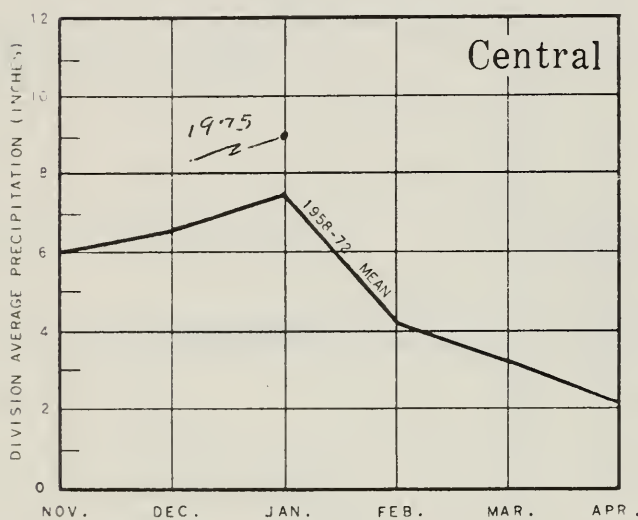
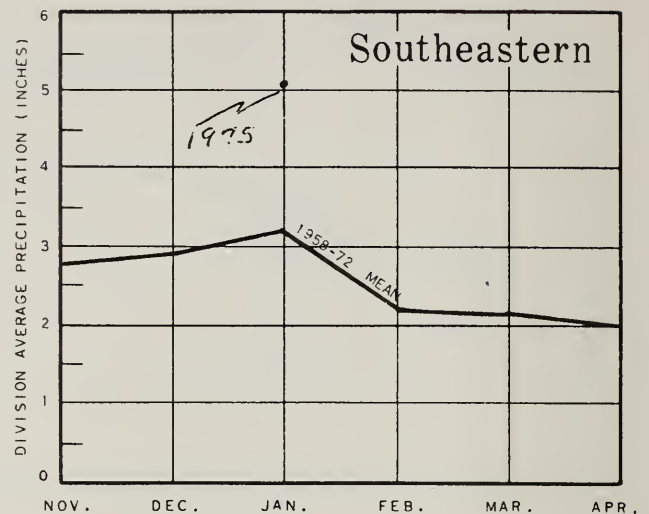
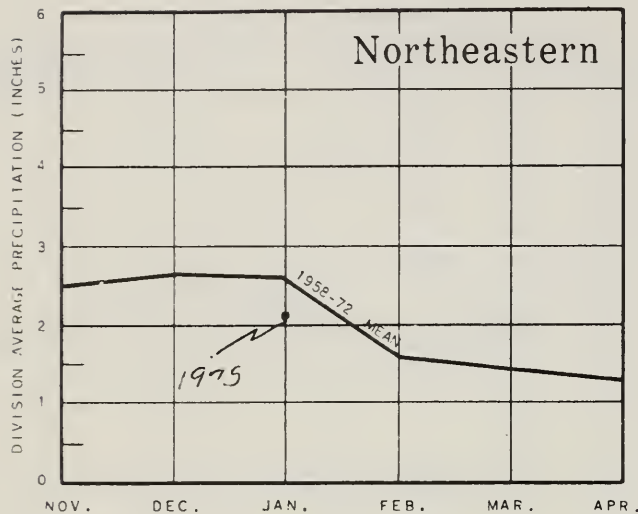


Selected Snow Survey Courses by Soil Conservation Service

WASHINGTON VALLEY PRECIPITATION

1975

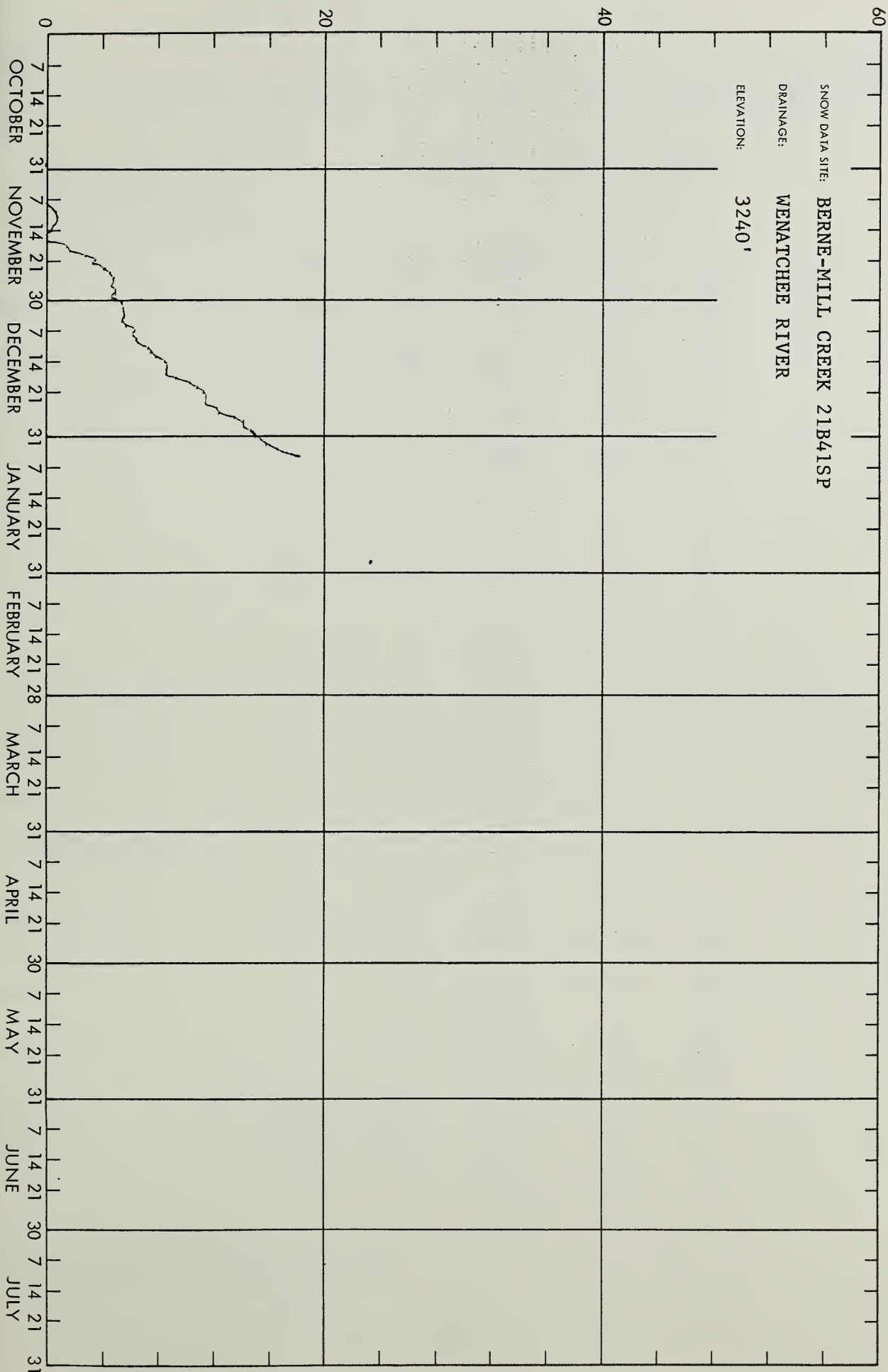
DRAINAGE AREAS



Preliminary Analysis by National Weather Service

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INCHES OF WATER IN SNOWPACK



SNOW DATA TO FEBRUARY 1, 1975 - APPENDIX 1

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average [#]

U P P E R C O L U M B I A D R A I N A G EPEND OREILLE RIVER

Benton Meadow	16A02	2344	12/30	15	1.9	3.0	3.5
			1/27	23	5.3	1.8	6.0
Benton Spring	16A03	4900	1/3	36	9.3	14.3	8.4
			1/27	49	14.8	20.1	13.8
Chewelah	17A04	4925	2/1	45	11.7	17.2	13.0
Heart Lake Trail	14C10	4800	12/27	40	8.3	11.7	8.7
			1/28	61	16.9	19.1	17.6
Hoodoo Basin	15C10	6000	12/27	66	17.0	30.0	20.8
			1/28	108	34.6	46.0	37.9
Hoodoo Creek	15C01	5900	12/27	63	13.9	24.9	18.9
			1/28	103	31.3	41.9	35.5
Lookout	15B02	5250	12/30	54	13.6	18.1	15.6
			1/31	82	26.0	32.0	26.7
Nelson	19-Can	3050	11/18	15	1.6	1.2	-
			11/29	14	2.8	5.4	-
			12/13	20	3.6	9.9	-
			12/30	44	7.7	13.4	7.4*
			1/30	50	13.0	15.7	11.3*
Schweitzer Bowl	16A06	4500	12/31	61	16.6	24.8	-
			1/30	80	27.1	32.5	22.6
Schweitzer Ridge	16A05	6100	12/31	93	30.2	34.8	-
			1/30	123	43.2	53.5	32.1
Winchester Creek	17A03	2970	1/29	34	8.4	10.4	9.7

KETTLE RIVER

Barnes Creek	90-Can	5300	1/30	55	15.9	15.1	14.1*
Big White Mtn.	154-Can	5500	1/29	61	17.8	19.0	13.8*
Boulder Road	18A02	1450	12/31	13	2.4	-	2.7
			1/30	17	4.1	2.0	4.6
Butte Creek	18A03	4070	12/31	22	4.8	-	4.7
			1/30	31	7.8	8.7	7.4
Cabin Creek	18A08	3170	12/31	22	4.4	-	4.4
			1/30	28	6.8	7.6	6.5
Carmi	126-Can	4100	1/29	31	7.7	6.2	5.3*
Farron # 1	17-Can	4000	1/30	40	9.9	13.9	9.6*
Farron # 2	243-Can	4000	1/30	39	10.1	12.9	New
Goat Creek	18A04	3595	12/31	19	3.9	-	4.1
			1/30	26	5.9	6.7	6.2

Average based on 1958-72 average

* Average for years of record

SNOW DATA TO FEBRUARY 1, 1975 - APPENDIX 2

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #

KETTLE RIVER (Cont.)

Monashee Pass	48A-Can	4500	12/31	32	8.0	6.6	-
			1/30	42	11.0	9.3	9.6*
Old Glory Mountain	42-Can	7000	1/30	73	25.5	34.2	19.0*
Snow Caps Creek	18A05	2150	12/31	12	2.2	-	3.0
			1/30	17	2.1	4.2	4.8
Snow Caps Trail	18A06	2720	12/31	17	3.2	-	3.5
			1/30	21	4.6	4.6	5.5
Summit G. S.	18A07	4600	12/31	21	4.5	-	3.8
			1/30	30	7.2	7.6	5.9
Trapping Creek Lower	166-Can	3050	1/29	32	6.5	4.8	4.4*
Trapping Creek Upper	165-Can	4450	1/29	42	9.8	8.5	7.4*

COLVILLE RIVER

Baird	17A6	3215	1/29	31	6.6	7.4	6.1
Carlson	18A9	2885	2/2	26	5.6	0.7	4.5
Chewelah	17A4	4925	2/1	45	11.7	17.2	13.0
Stranger Mountain	17A5	4990	2/1	42	10.4	16.5	11.0
Togo	18A10	3370	2/2	41	11.1	11.9	10.1

SPOKANE RIVER

Above Burke	15B8	4100	1/2	37	9.7	9.8	-
			1/30	64	16.2	17.7	-
Copper Ridge	16B2	4800	1/2	38	9.2	-	-
Fourth of July Summit	16B3	3100	1/2	21	4.3	-	-
			1/30	45	9.8	7.3	6.8
Lookout	15B02	5250	12/30	54	13.6	18.1	15.6
			1/31	82	27.2	32.0	26.4
Sherwin	16C1	3200	12/30	29	5.6	10.0	-
			1/31	51	14.4	14.8	11.0

OKANOGAN RIVER

Aberdeen Lake	6A-Can	4300	1/31	28	6.5	5.0	5.0*
Blackwall Peak	100-Can	6250	1/30	83	27.5	34.2	25.3*
Bouleau Lake	234-Can	4580	2/1	Not Measured		-	11.5*
Brenda Mine	193-Can	4800	12/27	35	8.0	-	-
			1/28	48	13.1	11.7	9.9*
Brookmere	27-Can	3200	1/29	33	7.1	7.6	7.2*

Average based on 1958-72 average

* Average for years of record

SNOW DATA TO FEBRUARY 1, 1975 - APPENDIX 3

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #

OKANOGAN RIVER (Cont.)

Carrs Landing Upper	168-Can	3200	12/30	18	3.2	2.6	-
			1/28	26	6.6	2.6	3.8*
Clark +	19A8a	7000	1/30	60	16.8	21.6	-
Dollar Watch +	20A29a	7000	1/30	72	21.6	29.7	19.4
Enderby	130-Can	6250	1/29	93	24.7	32.2	25.0*
Freezeout Meadows New	20A38	5000	1/27	79	24.7	63.3	New
Graystoke Lake	5-Can	5950	2/1	Not Measured		-	-
Hamilton Hill	107-Can	4900	1/29	48	12.3	13.2	10.4*
Harts Pass	20A05A	6500	1/28	108	36.1	52.3	32.7
Horseshoe Basin +	19A05a	7000	1/30	43	12.9	17.1	9.7
Isontok Lake	152-Can	5510	12/27	21	4.5	6.0	4.0*
			2/1	32	8.2	8.7	6.2*
Lost Horse Mtn.	105-Can	6300	1/31	35	7.7	10.7	6.7*
Loup Loup	19A07	4650	1/31	30	6.8	12.4	7.6
McCulloch	4-Can	4200	12/29	22	4.4	4.6	3.2*
			1/26	35	7.4	6.4	4.8*
Missizula Mtn.	106-Can	5100	1/28	37	9.0	11.2	6.5*
Mission Creek	5A-Can	6000	12/27	46	10.9	12.4	8.9*
			1/27	58	17.0	19.1	13.6*
Monashee Pass	48A-Can	4500	12/31	32	8.0	6.6	-
			1/30	42	11.0	9.3	9.6*
Mount Kobau	156-Can	5950	1/30	35	8.4	14.7	10.6*
Muckamuck +	19A09a	6390	1/30	40	11.2	18.6	-
Mutton Creek No. 1	19A01	5700	1/31	36	10.3	18.5	10.4
Mutton Creek No. 2	19A04	6000	1/31	30	9.0	17.5	10.9
Mutton Creek No. 2 SP	19A11SP	6000	1/31	-	7.0	13.4	New
New Copper Mtn.	46A-Can	4300	1/27	23	4.2	7.2	5.5*
New Penticton Res. # 2	183-Can	5225	1/30	36	8.9	9.3	7.5*
Oyama Lake	203-Can	4400	1/30	31	6.3	7.6	5.5*
Paysayten +	20A28a	4300	1/30	50	15.0	20.4	13.0
Postill Lake	55-Can	4500	1/30	34	8.2	6.5	5.9*
Rusty Creek	19A03	4000	1/30	22	5.0	9.4	5.9
Salmon Meadows	19A02	4500	1/30	30	6.5	11.5	7.8
Silver Star Mountain	99-Can	6050	12/29	60	18.1	18.9	14.2*
			2/1	72	26.1	25.2	19.1*
Starvation Mountain +	19A10a	6750	1/30	46	12.9	21.0	-
Summerland Reservoir	3A-Can	4200	12/29	29	6.6	6.4	4.6*
			2/2	42	10.9	8.4	7.7*
Touts Coulee	19A06	2845	1/30	11	1.6	4.9	3.4
Trout Creek	3-Can	4700	1/30	34	8.5	7.0	5.2*
Vaseux Creek	233-Can	4600	1/2	18	2.9	4.6	-
			1/29	28	6.0	5.4	5.5*
White Rocks Mtn.	70-Can	6000	1/30	69	23.9	27.3	18.5*

Average based on 1958-72 Average

* Average for years of record

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO FEBRUARY 1, 1975 - APPENDIX 4

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average [#]

METHOW RIVER

Billy Goat Pass +	21A10a	6409	1/30	63	18.9	28.5	20.8
Dollar Watch +	20A29a	7000	1/30	72	21.6	29.7	19.4
Harts Pass	20A05A	6500	1/28	108	36.1	52.3	32.7
Horseshoe Basin +	19A05A	7000	1/30	43	12.9	17.1	9.7
Loup Loup	19A07	4650	1/31	30	6.8	12.4	7.6
Mutton Creek No. 1	19A01	5700	1/31	56	10.3	18.5	10.4
Mutton Creek No. 2	19A04	6000	1/31	30	9.0	17.5	10.9
Rusty Creek	19A03	4000	1/30	22	5.0	9.4	5.9
Salmon Meadows	19A02	4500	1/30	30	6.5	11.5	7.8
War Creek Pass +	20A31a	6500	1/30	117	35.1	44.1	-

CHELAN LAKE BASIN

Cloudy Pass +	20A22a	6500	1/30	116	40.6	43.5	29.0
Greenwood Flat +	20A25a	3540	2/1	Not Measured		28.8	23.3
Little Meadows +	20A24a	5275	1/30	98	34.3	42.6	32.2
Lyman Lake +	20A23A	5900	2/1	Not Measured		**	42.1
Park Creek Flat +	20A13a	2220	2/1	Not Measured		32.0	27.3
Park Creek Ridge	20A12A	4600	1/30	125	43.8	56.0	34.1
Petersons +	20A16a	3730	1/30	102	35.7	39.4	25.1
Rainy Pass	20A09	4780	1/28	102	35.6	45.6	29.5
Safety Harbor +	20A30A	6300	1/30	66	19.8	**	-
War Creek Pass +	20A31a	6500	1/30	117	35.1	44.1	-

ENTIAT RIVER

Blue Creek G. S.	20B28a	5425	1/29	108	35.6	37.0	-
Brief	20B19	1600	1/26	23	6.1	-	6.8
Entiat Meadows +	20A33a	4800	1/29	120	39.6	48.7	-
Entiat River Trail +	20A34a	3150	1/29	52	17.2	22.3	-
Four Mile Ridge +	20B27a	7000	1/29	84	27.7	40.3	-
Fox Camp +	20A36a	6510	1/29	128	42.2	51.0	-
Pope Ridge	20B20	4300	1/27	50	16.5	24.0	14.0
Pugh Ridge	20A32a	6400	1/29	79	26.1	35.6	-
Shady Pass	20A37	6200	1/28	76	25.2	-	-
Snow Brushy +	20A35a	3850	1/29	87	28.7	37.2	-
Tommy Creek +	20B21a	5300	1/29	64	21.1	26.3	-

Average based on 1958-72 average

+ Snow water equivalent estimated from aerial stadia observation

** Marker down or buried

SNOW DATA TO FEBRUARY 1, 1975 - APPENDIX 5

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average [#]
<u>WENATCHEE RIVER</u>							
Berne-Mill Creek	21B23	3170	11/27	24	5.4	10.2	4.1
			12/13	34	8.2	12.9	7.6
			12/31	60	15.3	19.8	11.2
			1/15	84	25.0	-	16.8
			1/29	68	27.4	29.3	21.4
Berne-Mill Creek New	21B41SP	3240	11/27	23	5.2	10.0	-
			12/31	58	14.7	23.6	9.9
			1/29	56	23.2	28.2	18.7
Blewett Pass No. 2	20B02	4270	12/30	31	8.1	13.4	6.7
			1/29	44	15.6	19.0	13.0
Chiwaukum G. S.	20B16	1810	11/15	Not Measured		1.4	0.2
			12/1	Not Measured		4.6	1.5
			12/13	13	2.5	6.1	3.2
			12/31	19	3.9	10.0	5.1
			1/15	40	8.7	-	7.8
Lake Wenatchee	20B05	1970	1/29	30	8.9	12.8	9.9
			11/15	Not Measured		1.1	0.3
			11/27	5	0.6	4.7	1.5
			12/13	14	2.6	6.3	3.9
			12/31	27	5.4	10.9	6.1
Leavenworth R. S.	20B17	1127	1/15	54	12.1	13.9	9.6
			1/29	42	13.0	14.8	12.1
			10/29	0	0.0	0.5	0.0
			11/15	0	0.0	1.0	0.0
			11/30	0	0.0	2.2	0.8
Merritt	20B18	2140	12/13	5	1.0	3.0	1.8
			12/27	6	0.6	4.8	3.4
			1/15	25	5.8	6.8	4.7
			1/29	15	4.9	5.4	6.0
			11/27	8	1.9	6.6	2.3
Stevens Pass	21B01	4070	12/13	17	3.8	8.4	4.9
			12/31	33	7.7	13.4	7.9
			1/15	66	15.8	16.2	11.7
			1/29	50	17.2	17.9	14.5
			11/14	12	2.4	3.6	3.6
Stevens Pass Sand Shed	21B45	3700	11/27	38	9.2	14.6	8.9
			12/13	59	15.1	25.4	14.7
			12/31	95	29.4	32.6	21.7
			1/15	137	41.9	37.9	29.0
			1/29	111	46.0	45.8	37.0
			11/27	27	6.0	11.0	-
			12/13	40	9.9	16.0	-
			12/31	69	18.2	23.9	-
			1/15	101	29.3	27.9	-
			1/29	78	29.5	33.2	-

[#] Average based on 1958-72 average

SNOW DATA TO FEBRUARY 1, 1975 - APPENDIX 6

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
						Last Year	Average [#]
NAME	Number	Elevation					
<u>COLOCKUM CREEK</u>							
Colockum Creek Upper	20B22	5300	1/29	34	15.2	-	-
Colockum Creek Lower	20B23	4300	1/29	29	7.5	13.0	-
<u>SQUILCHUCK CREEK</u>							
Beehive Springs	20B03	4400	1/28	21	6.2	11.4	6.6
Scout-A-Vista	20B04	3400	1/28	28	7.0	12.2	6.5
<u>STEMILT CREEK</u>							
Jump-Off	20B08	4450	1/27	27	7.4	11.8	6.7
Stemilt Slide	20B06	5000	1/27	36	11.0	18.6	12.4
Upper Wheeler	20B07	4400	1/27	28	8.6	15.6	8.3
<u>YAKIMA RIVER</u>							
Ahtanum R. S.	21C11	3100	12/27	10	2.6	5.8	3.1
			1/28	28	6.8	10.2	6.3
Blewett Pass No. 2	20B02	4270	12/30	31	8.1	13.4	6.7
			1/29	44	15.6	19.0	13.0
Bumping Lake Old	21C08	3450	12/17	15	3.4	9.1	4.0
			12/31	27	5.9	14.4	7.1
			1/15	48	11.9	16.8	10.4
			1/31	44	13.1	20.2	13.2
Bumping Lake New	21C36	3400	12/17	21	5.2	10.8	5.8
			12/31	38	8.7	16.9	8.7
			1/15	60	15.2	18.8	13.0
			1/31	55	18.2	24.0	18.3
Cayuse Pass	21C06	5300	12/30	126	37.8	-	33.2
			1/27	176	60.5	86.4	58.7
Colockum Pass	20B09	5370	1/28	44	13.6	17.6	11.2
Cooke Creek	20B10	4123	1/28	25	6.2	8.2	7.2
Grouse Camp	20B11	5385	1/29	46	13.8	19.9	12.1
High Creek	20B12	2930	1/29	25	5.9	7.0	4.9
Joe Lake +	21B46a	4624	1/27	150	45.0	-	-
Green Lake	21C10	6000	1/28	88	31.8	25.2	-
Lake Cle Elum	21B14M	2200	11/1	0	0.0	0.9	-
			11/14	0	0.0	1.6	-
			12/3	2	0.6	3.6	1.1
			12/17	5	0.8	4.4	2.2
			1/3	26	4.6	9.0	4.2
			1/15	44	10.6	10.7	6.5
			1/30	30	10.3	10.4	8.2

Average based on 1958-72 average

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO FEBRUARY 1, 1975 - APPENDIX 7

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average †

YAKIMA RIVER (Cont.)

Lemah Creek +	21B47a	3327	1/27	102	32.6	39.6	-
Manashtash	20C01	3935	1/27	20	4.9	6.2	3.9
Morse Lake	21C17	5400	1/28	134	55.6	-	39.4
Nanum	20B13	3875	1/29	32	9.8	10.1	7.8
Olallie Meadows	21B02	3625	2/1	Late Report		65.1	32.7
Satus Pass	20D01	4030	1/30	26	8.6	12.0	8.7
Stampede Pass SP	21B10	3860	12/2	-	8.8	17.8	6.3
			12/16	-	15.1	23.4	11.9
			1/2	Not Measured		35.6	16.5
			1/18	-	44.1	39.4	22.0
			2/3	-	46.8	60.6	28.7
Trail Creek	20B14	3360	1/28	17	3.8	3.7	2.3
Tunnel Avenue	21B08	2450	11/1	0	0.0	1.0	-
			11/14	0	0.0	3.9	0.0
			12/2	15	3.0	8.5	2.7
			12/16	21	5.8	10.5	6.4
			12/31	79	10.6	18.8	9.2
			1/16	74	24.3	19.8	11.3
Van Epps Pass +	20B26a	5925	1/29	65	23.9	26.3	17.6
			1/27	127	38.1	51.0	-
			1/29	26	7.2	9.6	6.3
			1/27	111	36.6	36.9	-
			12/16	23	5.5	11.5	6.3
White Pass (E. Side)	21C28	4500	12/30	37	9.6	19.6	9.6
			1/16	65	18.9	21.3	14.0
			1/30	58	20.9	27.7	18.2
			12/31	42	12.9	23.1	11.8
White Pass (L. Lake)	21C27	4500	1/28	69	23.4	32.6	22.0

AHTANUM CREEK

Ahtanum R. S.	21C11	3100	12/27	10	2.6	5.8	3.1
			1/28	28	6.8	10.2	6.3
Green Lake	21C10	6000	1/28	88	31.8	25.2	-

Average based on 1958-72 average

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO FEBRUARY 1, 1975 - APPENDIX 8

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Number	Elevation				Last Year	Average [#]

LOWER COLUMBIA DRAINAGEASOTIN CREEK

Spruce Springs	17C04	5700	1/30	64	20.1	26.7	19.3
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MILL CREEK

Homestead	17C01	4030	1/29	26	7.1	10.9	6.5
Martin Springs	17C02	4400	1/29	38	11.2	15.6	9.8
Tollgate	18D3M	5070	1/28	60	19.6	33.6	16.7

KLICKITAT RIVER

Satus Pass	20D01	4030	1/30	26	8.6	12.0	8.7
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WHITE SALMON RIVER

Cultus Creek	21C12	4000	12/28	48	14.7	35.1	17.8
			1/27	79	27.1	49.4	32.5
Surprise Lakes	21C13A	4250	12/28	54	16.5	37.2	20.1
			1/27	92	32.7	58.7	35.9

WIND RIVER

Old Man Pass	21D19	3100	12/28	12	3.0	15.8	7.5
			1/28	29	9.9	19.3	14.7

LEWIS RIVER

Blue Lake +	21C22a	4800	12/27	90	27.9	55.1	34.5
			1/27	138	51.1	77.8	60.5
Bob's Trail	21C21	2200	12/27	14	2.9	12.4	6.5
			1/28	27	9.6	15.9	12.0
Calamity Ridge +	22D01a	2500	12/28	10	2.5	3.2	3.9
			1/27	12	4.0	0.3	5.6
Council Pass +	21C18a	4200	12/27	60	18.6	32.6	18.6
			1/27	74	26.6	46.9	29.7
Cultus Creek	21C12	4000	12/28	48	14.7	35.1	17.8
			1/27	79	27.1	49.4	32.5
Divide Meadow	21C29a	5600	12/27	78	24.2	34.6	27.5
			1/27	120	43.2	53.9	42.3
Grand Meadow	21C25	3500	12/27	28	8.2	20.2	10.5
			1/27	57	17.4	30.0	19.4
Lone Pine Shelter	21C26	3800	12/31	44	11.6	32.6	17.0
			1/28	62	23.4	45.1	30.5

Average based on 1958-72 average

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO FEBRUARY 1, 1975 - APPENDIX 9

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average [#]

LEWIS RIVER (Cont.)

Marble Mountain +	22C05a	3200	12/27	8	2.2	25.5	12.7
			1/27	23	8.7	37.0	28.7
Mosquito Meadows	21C19	4100	12/31	47	12.7	28.6	18.9
			1/28	68	24.7	41.3	32.1
New Muddy River	22C06	2000	12/27	4	1.1	7.4	6.4
			1/28	12	4.0	3.4	12.1
Old Man Pass	21D19	3100	12/28	12	3.0	15.8	7.5
			1/28	29	9.9	19.3	14.7
Plains of Abraham +	22C01a	4400	12/28	68	21.8	50.2	28.8
			1/27	84	31.1	61.6	45.2
Smith Creek Road	22C04	2100	12/27	9	2.2	14.4	9.5
			1/28	21	8.6	15.4	15.7
Spencer Meadow +	21C20a	3400	12/27	16	4.5	19.8	10.2
			1/28	32	11.2	30.2	17.9
Surprise Lakes	21C13A	4250	12/28	54	16.5	37.2	20.1
			1/27	92	32.7	58.7	35.9
Table Mountain +	21C24a	4200	12/27	60	18.6	38.4	21.4
			1/27	84	30.2	53.9	34.8
Timbered Peak +	21D18a	3000	12/28	12	3.1	13.9	8.0
			1/27	20	6.8	16.5	14.3

COWLITZ RIVER

Cayuse Pass	21C06	5300	12/30	126	37.8	52.8	41.3
			1/27	176	60.5	86.4	58.7
Mosquito Meadows	21C19	4100	12/31	47	12.7	28.6	18.9
			1/28	68	24.7	41.3	32.1
Ohanapecosh	21C32	2200	12/31	25	6.8	10.0	4.9
			1/28	43	15.2	13.9	14.4
Packwood Lake	21C31	2870	12/31	18	4.0	8.4	4.7
			1/27	36	10.6	14.5	10.6
Pigtail Peak	21C33	5900	12/31	85	26.8	33.7	26.1
			1/28	135	48.2	60.5	46.7
Plains of Abraham +	22C01a	4400	12/28	68	21.8	50.2	28.8
			1/27	84	31.1	61.6	45.2
Potato Hill	21C14	4500	12/31	49	13.2	22.2	12.8
			1/28	68	23.0	34.6	23.7
White Pass (E. Side)	21C28	4500	12/16	23	5.5	11.5	6.3
			12/30	37	9.6	19.6	9.6
			1/15	65	18.9	21.3	14.0
White Pass (L. Lake)	21C27	4500	1/30	58	20.9	27.7	18.2
			12/31	42	12.9	23.1	11.8
			1/28	69	23.4	32.6	22.0
Willame Creek	21C30	3250	12/31	42	11.6	22.6	10.8
			1/27	68	22.9	34.4	22.3

Average based on 1958-72 average

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO FEBRUARY 1, 1975 - APPENDIX 10

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average [#]

PUGET SOUND DRAINAGENISQUALLY RIVER

Ghost Forest	21C04	4550	12/30	73	20.6	29.7	13.6
			1/27	99	34.7	49.0	31.7
Longmire	21C03	2760	12/30	24	5.5	7.8	2.5
			1/27	36	12.7	17.2	8.3
New Paradise Park	21C35	5500	12/30	108	35.8	44.2	24.9
			1/27	152	59.2	76.0	50.2
Stem Glade	21C01	5050	12/30	110	32.4	40.7	24.9
			1/27	151	57.7	71.9	48.3

WHITE RIVER

Cayuse Pass	21C06	5300	12/30	126	37.8	52.8	41.3
			1/27	176	60.5	86.4	58.7
Morse Lake	21C17	5400	1/28	134	55.6	-	39.4

GREEN RIVER

Airstrip	21B24	1800	11/25	0	0.0	2.4	0.6
			12/28	11	2.0	2.5	2.5
			1/27	31	12.4	2.0	4.9
Charley Creek	21B25	1200	11/25	0	0.0	0.8	0.0
			12/28	11	2.0	0.6	1.6
			1/27	5	1.0	0.0	1.5
Cougar Mountain	21B42SP	3200	1/1	Late Report		15.2	-
			2/1	Late Report		24.6	-
Grass Mtn. No. 2	21B27	2900	11/25	2	0.6	9.2	2.9
			12/28	25	4.3	13.9	7.6
			1/27	39	12.2	26.2	15.3
Grass Mtn. No. 3	21B28	2100	11/25	0	0.0	3.1	0.7
			12/28	20	3.5	1.9	2.6
			1/27	27	8.0	2.8	5.3
Lester Creek	21B29	3100	11/25	12	3.1	9.1	3.4
			12/28	46	10.2	16.8	9.7
			1/27	68	22.8	28.8	17.8
Lynn Lake	21B50	4000	11/25	1	0.5	10.4	-
			12/28	32	7.5	16.2	-
			1/27	50	18.3	33.5	-
Sawmill Ridge	21B31	4700	11/25	22	5.4	10.8	7.0
			12/28	61	15.6	23.2	15.2
			1/27	96	33.0	43.8	28.6

Average based on 1958-72 average

SNOW DATA TO FEBRUARY 1, 1975 - APPENDIX 11

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #

GREEN RIVER (Cont.)

Stampede Pass SP	21B10	3860	12/2	-	8.8	17.8	6.3
			12/16	-	15.1	23.4	11.9
			1/2	Not Measured		35.6	16.5
			1/18	-	44.1	39.4	22.0
			2/3	-	46.8	60.6	28.7
Twin Camp	21B30	4100	11/25	14	3.5	-	4.1
			12/28	48	10.7	17.8	11.3
			1/27	76	24.2	32.2	17.6

SNOQUALMIE RIVER

Olallie Meadows	21B02	3625	Late Report			65.1	32.7
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SKYKOMISH RIVER

Stevens Pass	21B01	4070	11/11	12	2.4	3.6	3.6
			11/27	38	9.2	14.6	8.9
			12/13	59	15.1	25.4	14.7
			12/31	95	29.4	32.6	21.7
			1/15	137	41.9	37.9	29.0
			1/29	111	46.0	45.8	37.0
Stevens Pass Sand Shed	21B45	4070	11/27	27	6.0	11.0	-
			12/13	40	9.9	16.0	-
			12/31	69	18.2	23.9	-
			1/15	101	29.3	27.9	-
			1/29	78	29.5	33.2	-

SKAGIT RIVER

Beaver Creek Trail	21A04	2200	1/28	37	14.9	16.4	-
Beaver Pass	21A01	3680	1/27	60	20.6	35.1	-
Brown Top Ridge +	21A28a	6000	1/27	132	46.2	74.4	-
Cloudy Pass +	20A22a	6500	1/30	116	40.6	43.5	29.0
Devils Park	20A04	5900	1/28	112	39.6	53.5	31.9
Freezeout Creek Trail	20A01	3500	1/27	32	10.6	15.6	-
Freezeout Meadows New	20A38	5000	1/27	79	24.7	63.3	-
Granite Creek	21A29A	3500	1/28	54	16.4	21.0	-
Harts Pass	20A05A	6500	1/28	108	36.1	52.3	32.7
Klesilkwa	35B-Can	3700	2/1	27	9.1	-	10.4*
Lyman Lake	20A23A	5900	2/1	Not Measured		**	42.1
Meadow Cabins	20A08	1900	1/28	21	7.1	5.6	-
New Hozomeen Lake	21A30	2800	1/27	30	9.0	16.7	-
New Tashme	26A-Can	2500	1/31	29	10.8	13.4	8.5
Rainy Pass	20A09	4780	1/28	102	35.6	45.6	29.5
Thunder Basin	20A07	4200	1/28	53	18.8	24.1	-

** Marker down or buried

Average based on 1958-72 average

* Average for years of record

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO FEBRUARY 1, 1975 - APPENDIX 12

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
<u>BAKER RIVER</u>							
Baker Pass +	21A27a	4900	12/31	100	35.0	52.0	-
			1/27	132	53.0	101.0	-
Dock Butte +	21A11A	3800	12/31	90	32.0	39.0	-
			1/27	126	50.0	85.0	44.8
Easy Pass +	21A7A	5200	12/31	120	42.0	37.0	-
			1/27	152	61.0	86.0	53.9
Jasper Pass +	21A6A	5400	12/31	148	52.0	58.0	-
			1/27	180	72.0	108.0	65.7
Marten Lake	21A09A	3600	12/31	120	42.0	48.0	-
			1/27	145	58.0	82.0	52.2
Mt. Blum +	21A18a	5800	12/31	102	36.0	48.0	-
			1/27	134	54.0	77.0	42.5
Panorama New	21A26	4300	1/16	132	50.2	41.7	-
			1/31	121	51.2	62.0	-
Rocky Creek	21A12A	2100	12/31	47	16.0	19.0	-
			1/27	62	25.0	35.0	21.5
Schreibers Meadow	21A10A	3400	12/31	76	27.0	37.0	-
			1/27	86	34.0	77.0	39.9
S. F. Thunder Creek +	21A14A	2200	12/31	24	8.0	6.0	-
			1/27	38	15.0	13.0	7.4
Watson Lakes	21A08A	4500	12/31	97	34.0	40.0	-
			1/27	132	53.0	77.0	42.9

NOOKSACK RIVER

Glacier Creek	21A23	3700	11/29	7	1.4	9.0	-
			1/6	42	10.4	8.2	-
			2/3	42	16.5	18.4	-
Panorama New	21A26	4300	1/16	132	50.2	41.7	-
			1/31	121	51.2	62.0	-

Average based on 1958-72 average

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO FEBRUARY 1, 1975 - APPENDIX 13

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average [#]

O L Y M P I C P E N I N S U L AMORSE CREEK

Cox Valley	23B14	4500	1/29	74	27.5	40.8	-
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ELWHA RIVER

Hurricane	23B03	4500	1/28	50	16.3	-	16.7
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SKOKOMISH RIVER

Black & White	23B07	4200	12/27	47	12.5	29.2	16.9
			1/27	65	23.8	41.8	30.5
Black & White Lakes	23B06	4700	12/27	72	22.2	38.4	26.0
			1/27	86	36.6	55.0	43.9
Four Streams	23B10	3000	12/27	19	3.8	23.6	15.1
			1/27	36	13.2	29.6	24.7
Home Sweet Home	23B05	5200	12/28	88	29.2	46.3	36.2
			1/27	118	45.8	69.0	56.5

Average based on 1958-72 average

Agencies Assisting with Snow Surveys

GOVERNMENT AGENCIES

Canada:

Department of Lands, Forests and Water Resources,
Water Resources Service, British Columbia

States:

Washington State Department of Ecology
Washington State Department of Natural Resources

Federal:

Department of the Army
Corps of Engineers
U. S. Department of Agriculture
Forest Service
U. S. Department of Commerce
NOAA, National Weather Service
U. S. Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Geological Survey
National Park Service

PUBLIC AND PRIVATE UTILITIES

Chelan County P.U.D.
Pacific Power and Light Company
Puget Sound Power and Light Company
Washington Water Power Company

OTHER PUBLIC AGENCIES

Okanogan Irrigation District
Wenatchee Heights Irrigation District

MUNICIPALITIES

City of Tacoma
City of Seattle

Other organizations and individuals furnish valuable information for snow survey reports. Their cooperation is gratefully acknowledged.

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